

**REMARKS**

The Official Action dated August 6, 2003 has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. By the present Amendment, claims 26, 28, 29, 32, and 33 have been amended in the manner set out above. It is believed that the claims clearly define the invention over the prior art. Reconsideration is respectfully requested.

In the Office Action of August 6, 2003, the Examiner rejected claims 1, 26-28 under 35 USC 102(b) as being anticipated by Nakase et al. (US 5,578,815). Claims 1 and 26 were rejected as being anticipated by Moses, Jr. (US 5,296,697). Claims 26, 29, 32 and 33 were rejected as being unpatentable by Ohtomo (US 4,292,514). Finally, claims 26 and 27 were rejected under 35 U.S.C. 102(e) as being anticipated by Kiyota (US 6,426,494).

The references relied upon by the Examiner are misconstrued in the explanation given in the Office Action. In point of fact, none of the references suggests the filter arrangement as called for in the rejected claims. For example, the Examiner's explanation of the operation of the circuit of Fig. 9 of Nakase U.S. Patent No. 5,578,815 is completely wrong. Amplifier 140 is merely a buffer on the output of the temperature adjusted voltage supply which is comprised of  $V_H$ , R31, and APD1. Resistor R31 is not a signal filter and diode APD1 is not a photodetector. Rather, photodetection is accomplished by diodes APD2<sub>1</sub> through APD2<sub>3</sub>.

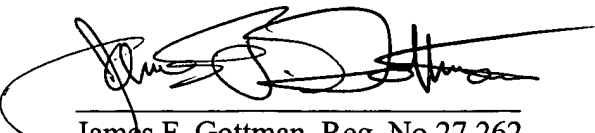
Similarly, the Moses U.S. Patent No. 5,296,697 is not relevant to the claims. The Examiner asserts that the capacitor C2 constitutes the filter called for in the claims. This is incorrect, however. It is apparent that the capacitor C2 is simply a coupling capacitor, which does not perform a filtering function. There is no mention in the '697 patent of filtering the output of the diode D1, nor of the capacitor performing a filtering function. Further, there is no value given for the capacitor which might allow one to infer that it filters the output of the diode. Based on this it is reasonable to infer that the capacitor simply couples the diode output to the amplifier IC1.

Similarly, Kiyota U.S. Patent No. 6,426,494 is not anticipatory of claims 26 and 27, as amended. Although, Kiyota suggests a constant-voltage reverse bias arrangement for a photodiode, there is no teaching of filtering a diode output prior to supplying it to an amplifier in Kiyota.

In Ohtomo U.S. Patent No. 4,292,514 the Examiner again assigns functions to circuit components without any supporting basis. The Examiner makes reference to the circuitry of Fig. 1 of the drawings, which is discussed in column 1 of the specification. The Examiner points to a "constant bias circuit" that she asserts supplies a substantially constant reverse bias voltage across the photodiode. In fact, the output of the voltage control circuit is not constant, but is adjusted based upon the response of the photodiode PD to a reference LED light source. Further, the Ohtomo patent does not include a teaching of filtering a photodiode output ahead of an amplifier (specifically amplifier 2). The resistor R and the capacitor, bearing no label but attached to resistor R, do not perform a filter function. Rather, the resistor R and the diode PD constitute a voltage divider that provides an output in dependence upon the varying impedance of the diode. The unlabeled capacitor appears to be a simple coupling capacitor. There is no suggestion in the specification that these components would perform a filtering function, and no component values are given that might allow this to be inferred.

In conclusion, it is apparent that all of the claims are not properly rejected based on the references that are now of record. It is believed that the above represents a complete response to the rejections under and places the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,



James F. Gottman, Reg. No. 27,262

DINSMORE & SHOHL LLP  
One Dayton Center  
One South Main Street, Suite 500  
Dayton, Ohio 45402  
(937) 223-2050